

Technical Report PR91-04

**1990**

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**RIDERSHIP**

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**REVIEW**

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1990 RIDERSHIP REVIEW

Prepared by  
Market Analysis and Research Section

Planning and Research Department  
Chicago Transit Authority

May, 1991

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## INTRODUCTION

This report describes and analyzes CTA's ridership patterns in 1990. Overall, ridership was essentially stable in comparison to 1989, with a slight ridership gain of 0.1%. 1990 ridership shifts by mode and by fare payment type are reviewed.

Five additional topics are also covered:

- Impacts of the April 29, 1990 Fare Restructuring on ridership over the last 8 months of the year.
- Recent ridership trends, for bus and rail as well as system-wide, including seasonal variations over the last four years.
- Shifts in ridership between 1989 and 1990, among full fare and reduced fare rider categories.
- Pass sales and usage trends over the last several years.
- Based on 1990 CTA, Metra, and Pace data, an analysis of suburban CTA ridership is also summarized, indicating that CTA carries the majority of all suburban transit riders.

## 1990 RIDERSHIP BY MODE AND FARE PAYMENT TYPE

As indicated in Table 1, CTA experienced a slight ridership gain in 1990 of +0.1%, when compared to 1989. In general, much of this gain was experienced early in the year, with the last half of the year showing a modest decline.

The pattern experienced in 1989 showing an apparent shift of pass users to cash fares continued and accelerated in 1990. This was due largely to the April fare restructuring. While pass usage declined -12.2%, full fare cash and token ridership correspondingly went up +8.7%. About 2/3-3/4 of the trips no longer made by pass users appear to have shifted to cash fares. Some former pass buyers are apparently continuing to re-evaluate their travel costs and opting to either ride CTA less and/or pay cash. This continued shift away from passes, and the fare restructuring itself, also yielded significantly higher average fares in 1990.

Because of unexpected continuation of the 1989 shift from pass usage to cash fares, the budgeted passenger revenue target for 1990 was actually exceeded by 3.2% (see Table 2). In other words, the annual revenue gain built into the fare restructuring of about 2.2% was more than doubled, to 5.4%, even though ridership stayed even. As Table 2 indicates, farebox revenues were about 12.4% higher than budgeted (and 9.8% over 1988), accompanied by a -21.7% shortfall against budget in pass sales revenues (and -8.8% below 1989).

Table 1  
1990 Ridership Shifts

PERCENT INCREASE (DECREASE) COMPARED WITH SAME PERIOD IN 1989

|              | B U S      |               |                      | R A I L    |               |                      | S Y S T E M |               |                      |
|--------------|------------|---------------|----------------------|------------|---------------|----------------------|-------------|---------------|----------------------|
| 1990 Period  | Full Fares | Reduced Fares | Passes/Permits Total | Full Fares | Reduced Fares | Passes/Permits Total | Full Fares  | Reduced Fares | Passes/Permits Total |
| 1            | 6.8        | -7.2          | -2.2                 | 1.0        | 1.0           | -8.0                 | -2.4        | 1.0           | 4.9                  |
| 2            | 10.6       | -8.7          | -0.2                 | 3.2        | 6.0           | -8.4                 | -1.0        | 4.1           | 9.1                  |
| 3            | 10.3       | -2.4          | -0.9                 | 3.3        | 6.2           | -4.3                 | -2.1        | 3.6           | 8.9                  |
| 4            | 12.9       | -10.8         | -10.8                | 0.2        | 4.3           | -8.9                 | -11.2       | 0.3           | 10.0                 |
| 5            | 9.8        | -4.3          | -21.0                | -2.3       | 2.2           | -6.4                 | -13.1       | -3.2          | 7.2                  |
| 6            | 12.8       | 1.7           | -15.9                | -0.8       | 4.3           | -2.1                 | -15.0       | -2.3          | 9.9                  |
| 7            | 13.8       | 9.8           | -16.2                | -0.5       | 7.1           | 5.4                  | -15.7       | -0.9          | 11.5                 |
| 8            | 11.3       | 8.3           | -17.0                | -2.1       | 4.8           | 5.8                  | -17.3       | -1.8          | 9.1                  |
| 9            | 10.9       | 12.1          | -14.7                | 0.4        | 4.2           | 5.5                  | -17.8       | -2.1          | 8.7                  |
| 10           | 9.3        | 16.1          | -14.9                | 0.6        | 3.5           | 6.5                  | -17.5       | -2.5          | 7.3                  |
| 11           | 9.9        | 11.7          | -15.7                | -0.5       | 4.1           | 16.3                 | -19.3       | -3.1          | 7.9                  |
| 12           | 9.8        | 23.7          | -15.1                | 1.2        | 6.8           | 15.2                 | -19.5       | -1.3          | 8.8                  |
| Annual Total | 10.7       | 3.6           | -12.0                | 0.4        | 4.6           | 1.0                  | -12.6       | -0.7          | 8.7                  |
|              |            |               |                      |            |               |                      |             |               | 3.3                  |
|              |            |               |                      |            |               |                      |             |               | -12.2                |
|              |            |               |                      |            |               |                      |             |               | 0.1                  |

NOTE: Transfers received are not included; transfers sold are included under "Full Fare" and "Reduced Fare" cash fares.

Table 2  
1990 PASSENGER REVENUE SHIFTS

| PERIOD          | Percent Change From<br>Same Period in 1989 |        | Percent Variation<br>From 1990 Budget<br>Target |        | TOTAL<br>PASSENGER<br>REVENUE |
|-----------------|--|--------|---|--------|-------------------------------|
|                 | FAREBOX                                    | PASSES | FAREBOX   | PASSES |                               |
| 1               | + 3.6                                      | + 1.2  | + 3.0   | + 3.6  | + 3.3                         |
| 2               | + 7.4                                      | + 3.3  | + 6.3   | + 7.3  | + 7.2                         |
| 3               | + 6.5                                      | + 1.4  | + 5.3   | + 6.3  | + 4.9                         |
| 4               | + 5.3                                      | -10.5  | + 1.5   | + 6.8  | - 3.6                         |
| 5               | +11.5                                      | - 7.6  | + 7.0   | +14.7  | -28.9                         |
| 6               | +12.1                                      | - 7.1  | + 7.6   | +15.8  | -30.5                         |
| 7               | +14.3                                      | - 8.7  | + 9.2   | +18.6  | -28.8                         |
| 8               | +12.0                                      | -20.6  | + 4.3   | +16.9  | -32.4                         |
| 9               | +12.2                                      | -12.9  | + 6.6   | +14.8  | -28.7                         |
| 10              | +10.3                                      | -16.0  | + 4.2   | +13.8  | -30.7                         |
| 11              | +10.1                                      | -13.0  | + 4.6   | +13.5  | -32.8                         |
| 12              | +11.9                                      | -16.3  | + 5.2   | +16.2  | -33.4                         |
| ANNUAL<br>TOTAL | + 9.8                                      | - 8.8  | + 5.4   | +12.4  | -21.7                         |
|                 |  |        |   |        | + 3.2                         |

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Table 1 also indicates that the CTA bus ridership gain experienced in 1990 (0.4%) was more than the system-wide gain. Rail declined by -0.7%. In terms of total ridership levels, bus increased and rail declined by comparable amounts (+1.5 million annual unlinked trips for bus versus -1.0 million for rail).

Table 3 gives a further breakdown of bus and rail ridership patterns by fare category, and shows that the turnaround increase in reduced fare riding occurred primarily on bus, as did the decline in pass usage. Note also (Table 1) that the increase in full cash fare ridership (cash fare or cash fare plus transfer) was significantly higher for bus (+10.8%) than for rail (+4.6%). Table 3 also indicates a decline in 1990 in rail cross-platform transfers (no fares paid or transfers presented/received). This was due largely to changes in rail service regarding stop patterns. Total CTA ridership, as reported to UMTA, consequently fell slightly by -0.2%. Table 4 gives additional information on average weekday, Saturday, and Sunday ridership, by mode and fare payment type.

Reduced fare ridership gain during 1990 was the most significant passenger shift observed, with an overall increase of +3.2%. This compares to a -8.5% loss of reduced fare riders in 1989 and a -11.5% loss of reduced fare riders in 1988. The total reduced fare ridership gain for the year amounted to 1.2 million unlinked trips, as compared to a 21.6 million trip loss for pass/permit users, and a 16.4 million gain in unlinked trips for full fare cash-paying passengers.

#### IMPACT OF APRIL, 1990 FARE RESTRUCTURING

The slight ridership increase experienced in 1990 was due in part to the consumer-based fare structure that was implemented on April 29, 1990. This innovative fare restructuring involved increasing fares for some riders while decreasing fares for others, coupled with placing greater emphasis on prepayment of fares via discounted tokens and passes. For the first time in its history, CTA was consequently able to simultaneously achieve a passenger revenue increase as well as a slight ridership gain.

This consumer-based fare structure has the following four key elements:

- Lowering of fares for those most sensitive to pricing --- seniors, disabled, and students, who experienced a 20% price drop.
- Significant increasing of fares for those least sensitive to pricing --- rail transit riders and peak-hour bus riders, who experienced a fare increase of 25%.

Table 3

12th Period ended December 29, 1990.

## Ridership Fact Sheet

| RIDERSHIP CATEGORIES           | CURRENT PERIOD |            |          | YEAR TO DATE |             |                     |
|--------------------------------|----------------|------------|----------|--------------|-------------|---------------------|
|                                | 1990           | 1989       | % CHANGE | 1990         | 1989        | CHANGE %            |
| <b>UNLINKED TRIPS</b>          |                |            |          |              |             |                     |
| FULL FARES                     | 12,619,308     | 11,494,714 | 9.8%     | 138,163,879  | 124,734,935 | 13,428,945 10.8%    |
| REDUCED FARES                  | 3,688,417      | 2,982,440  | 23.7%    | 35,176,839   | 33,950,488  | 1,226,350 3.6%      |
| TRANSFERS RECEIVED             | 11,581,653     | 11,228,596 | 3.1%     | 130,926,504  | 128,075,311 | 2,851,193 2.2%      |
| PASS/PERMIT USES               | 9,722,635      | 11,452,044 | -15.1%   | 116,868,424  | 132,885,599 | (16,017,175) -12.1% |
| TOTAL BUS TRIPS                | 37,612,014     | 37,157,793 | 1.2%     | 421,135,646  | 419,646,333 | 1,489,313 0.4%      |
| <b>SPECIAL SERVICES SYSTEM</b> |                |            |          |              |             |                     |
| FULL FARES                     | 64,955         | 61,088     | 6.3%     | 807,151      | 778,985     | 28,166 3.6%         |
| PASS/PERMIT USES               | 8,678          | 11,354     | -23.6%   | 123,650      | 145,796     | (22,146) -15.2%     |
| TOTAL SPECIAL SERVICES TRIPS   | 73,633         | 72,442     | 1.6%     | 930,801      | 924,781     | 6,020 0.7%          |
| <b>RAPID TRANSIT SYSTEM</b>    |                |            |          |              |             |                     |
| FULL FARES                     | 5,941,341      | 5,561,662  | 6.8%     | 66,905,508   | 63,941,418  | 2,964,090 4.6%      |
| REDUCED FARES                  | 442,172        | 380,879    | 16.1%    | 4,388,946    | 4,346,039   | 42,907 1.0%         |
| TRANSFERS RECEIVED             | 3,320,338      | 3,172,418  | 4.7%     | 36,467,197   | 34,916,557  | 1,550,640 4.4%      |
| PASS/PERMIT USES               | 3,118,516      | 3,871,203  | -19.4%   | 38,497,970   | 44,066,598  | (5,568,628) -12.6%  |
| TOTAL RAPID TRANSIT TRIPS      | 12,822,367     | 12,986,162 | -1.3%    | 146,259,621  | 147,253,464 | (993,843) -0.7%     |
| <b>CTA SYSTEM BY FARE TYPE</b> |                |            |          |              |             |                     |
| FULL FARES                     | 18,625,604     | 17,117,464 | 8.8%     | 205,876,538  | 189,455,338 | 16,421,201 8.7%     |
| REDUCED FARES                  | 4,130,589      | 3,363,319  | 22.8%    | 39,565,785   | 38,296,527  | 1,269,257 3.3%      |
| TRANSFERS RECEIVED             | 14,901,991     | 14,401,014 | 3.5%     | 167,393,701  | 162,991,868 | 4,401,833 2.7%      |
| PASS/PERMIT USES               | 12,849,829     | 15,334,601 | -16.2%   | 155,490,043  | 177,097,993 | (21,607,950) -12.2% |
| TOTAL RIDERSHIP                | 50,508,013     | 50,216,397 | 0.6%     | 568,326,068  | 567,824,578 | 501,490 0.1%        |
| RAIL INTERNAL TRANSFERS        | 1,705,375      | 1,882,993  |          | 19,452,530   | 21,351,752  | (1,899,223)         |
| UMTA SECTION 15 RIDERSHIP      | 52,213,388     | 52,099,390 | 0.2%     | 587,778,597  | 589,176,330 | (1,397,733) -0.2%   |

NOTE: Transfers Sold are included under "Full Fares" and "Reduced Fares" cash and token fares.

Table 4  
Ridership Fact Sheet

12th Period ended December 29, 1990.

| RIDERSHIP CATEGORIES         | CURRENT   | YEAR      | TO      | DATE | PREVIOUS  | YEAR      | TO      | DATE | WKDY % |
|------------------------------|-----------|-----------|---------|------|-----------|-----------|---------|------|--------|
|                              | WEEKDAY   | SATURDAY  | SUNDAY  |      | WEEKDAY   | SATURDAY  | SUNDAY  |      | CHANGE |
| DAILY AVERAGE                |           |           |         |      |           |           |         |      |        |
| BUS SYSTEM                   |           |           |         |      |           |           |         |      |        |
| FULL FARES                   | 440,308   | 304,189   | 181,171 |      | 407,371   | 265,320   | 133,448 |      | 8.1%   |
| REDUCED FARES                | 121,594   | 47,960    | 31,002  |      | 118,610   | 44,861    | 27,276  |      | 2.5%   |
| TRANSFERS RECEIVED           | 411,895   | 261,025   | 219,517 |      | 388,243   | 238,160   | 296,025 |      | 6.1%   |
| PASS/PERMIT USES             | 376,614   | 226,485   | 162,608 |      | 418,105   | 280,890   | 211,841 |      | -9.9%  |
| TOTAL BUS TRIPS              | 1,350,410 | 839,659   | 594,298 |      | 1,332,330 | 829,231   | 668,591 |      | 1.4%   |
| SPECIAL SERVICES SYSTEM      |           |           |         |      |           |           |         |      |        |
| FULL FARES                   | 2,595     | 1,398     | 1,297   |      | 2,502     | 1,410     | 1,232   |      | 3.7%   |
| PASS/PERMIT USES             | 398       | 213       | 197     |      | 468       | 264       | 230     |      | -15.0% |
| TOTAL SPECIAL SERVICES TRIPS | 2,994     | 1,611     | 1,494   |      | 2,970     | 1,673     | 1,463   |      | 0.8%   |
| RAPID TRANSIT SYSTEM         |           |           |         |      |           |           |         |      |        |
| FULL FARES                   | 230,248   | 96,906    | 58,334  |      | 221,640   | 92,097    | 52,158  |      | 3.9%   |
| REDUCED FARES                | 15,092    | 5,984     | 3,648   |      | 15,304    | 5,787     | 3,384   |      | -1.4%  |
| TRANSFERS RECEIVED           | 117,763   | 66,197    | 53,559  |      | 110,761   | 57,095    | 65,787  |      | 6.3%   |
| PASS/PERMIT USES             | 130,519   | 57,340    | 40,764  |      | 147,260   | 72,501    | 51,522  |      | -11.4% |
| TOTAL RAPID TRANSIT TRIPS    | 493,623   | 226,427   | 156,305 |      | 494,965   | 227,480   | 172,851 |      | -0.3%  |
| CTA SYSTEM BY FARE TYPE      |           |           |         |      |           |           |         |      |        |
| FULL FARES                   | 673,151   | 402,492   | 240,801 |      | 631,513   | 358,826   | 186,838 |      | 6.6%   |
| REDUCED FARES                | 136,686   | 53,944    | 34,650  |      | 133,914   | 50,648    | 30,660  |      | 2.1%   |
| TRANSFERS RECEIVED           | 529,657   | 327,223   | 273,076 |      | 499,004   | 295,255   | 361,813 |      | 6.1%   |
| PASS/PERMIT USES             | 507,531   | 284,038   | 203,570 |      | 565,834   | 353,655   | 263,594 |      | -10.3% |
| TOTAL RIDERSHIP              | 1,847,027 | 1,067,697 | 752,097 |      | 1,830,265 | 1,058,384 | 842,904 |      | 0.9%   |
| RAIL INTERNAL TRANSFERS      | 65,652    | 30,115    | 20,789  |      | 71,770    | 32,985    | 25,063  |      |        |
| UMTA SECTION 15 RIDERSHIP    | 1,912,678 | 1,097,812 | 772,886 |      | 1,902,035 | 1,091,369 | 867,968 |      | 0.6%   |

- Deep discounting of a prepaid fare instrument --- the token, priced at 28% below peak-hour fares --- to offer an incentive for continued riding by those regular travelers who might otherwise respond negatively to a price increase.
- Introduction of a new weekday-only monthly pass, aimed at full fare work-trip commuters, and priced 25% lower than the everyday monthly pass.

The fare restructuring was, in fact, targeted toward the typical CTA weekday rider. As indicated in Tables 5 and 6, positive ridership gains were experienced in the last 8 periods of 1990 for the weekday ridership market. Revenues during the week increased 3.9% since the fare restructuring, while ridership also increased by 1.5%. Reduced fare ridership and token usage both increased significantly, in response to their lower pricing.

Another element of the April 29, 1990 fare restructuring involved the elimination of the Supertransfer on Sunday. It had been felt for some time that the Supertransfer was subject to misuse, by being passed among different family members and unrelated persons. It was sold and intended for use by the purchaser only. With the elimination of the Supertransfer, as summarized in Table 6, fare payment methods on Sunday changed dramatically. The 16.9% ridership loss that was experienced is probably roughly equivalent to the non-permitted "passing on" of the Supertransfer. The decline in pass use on Sundays is also due to the popularity of the new weekday-only pass. Table 6 also indicates that revenue increased on Sundays, by 18.9%.

#### FULL AND REDUCED FARE RIDERSHIP SHIFTS

The composition of both full fare and reduced fare ridership was further reviewed in terms of shifts from the previous year. This includes an examination of both unlinked trips, as reported at the point of fare collection, and linked trips or journeys, representing door-to-door travel. The number of linked trips or journeys is always less than the number of unlinked trips, since journeys are composed of one or more unlinked trips. Estimates of the number of unlinked trips per journey are based upon surveys of passengers conducted in the last few years.

Tables are presented in this section which separately examine full fare and reduced fare passengers in terms of cash (including tokens), transfer presentation, or pass fare payment; changes between 1989 and 1990 in terms of method of fare payment, as well as by mode (bus or rail, for unlinked trips); estimated number of door-to-door journeys (linked trips); revenue as distinguished from ridership for each ridership class; and average fare paid by each rider class, with both pass and cash fare components distinguished.

Table 5  
1990 FARE RESTRUCTURING: WEEKDAY RIDERSHIP IMPACTS

|                                       | <u>FORECASTED</u>   | <u>10th PERIOD ACTUAL</u> | <u>5th - 12th PERIODS AVERAGE</u> |
|---------------------------------------|---------------------|---------------------------|-----------------------------------|
| SYSTEM RIDERSHIP                      | UP 0.1%             | UP 1.8%                   | UP 1.5%                           |
| TOKEN USAGE GROWTH                    | 1.75 to 3.50 factor | 2.90 factor               | 2.91 factor                       |
| REDUCED FARE RIDERS<br>(Cash & Token) | UP 7 to 10%         | UP 15.2%                  | UP 8.5%                           |
| FULL FARE RIDERS<br>(Cash Only)       | DOWN 5%             | DOWN 24.5% <sup>1</sup>   | DOWN 21.0%                        |
| PASS USAGE (All Passes)               | UP 5 to 10%         | DOWN 12.7% <sup>2</sup>   | DOWN 13.1%                        |

Most of these riders shifted to tokens and passes.

<sup>1</sup> This decline also corresponds to the decline in pass sales.

Table 6  
WEEKDAY VS. SUNDAY RIDERSHIP/REVENUE IMPACTS  
(5TH - 12TH PERIODS AVERAGE)

| RIDERSHIP               | PERCENT CHANGE FROM 1989 |                |                |
|-------------------------|--------------------------|----------------|----------------|
|                         | AVERAGE WEEKDAY          | AVERAGE SUNDAY | PERIOD AVERAGE |
| FULL FARE CASH/TOKEN    | +6.7%                    | +44.4%         | +8.8%          |
| REDUCED FARE CASH/TOKEN | +8.8                     | +25.4          | +9.2           |
| TRANSFERS RECEIVED      | +9.3                     | -39.7          | +3.1           |
| PASS/PERMIT             | -13.1                    | -32.0          | -16.4          |
| SYSTEM RIDERSHIP        | +1.5                     | -16.9          | -0.9           |
| REVENUE                 | +3.9%                    | +18.9%         | +6.1%          |

Tables 7 and 8 summarize the assumptions necessary regarding transfers received and pass presentations in order to break these single fare payment method categories into full fare and reduced fare components. These breakdowns correspond to the percentages of transfer and token sales that were observed, assuming equivalent usage rates for either full or reduced fare passengers. Adjustments were made to reflect the higher level of transfer usage on buses overall, as compared to rail. The full/reduced split for passes by mode also reflects the conversion of 14-day pass usage to monthly equivalents (for Periods 1-4), but with no modal usage distinction.

### Full Fare Riders

Tables 9 and 10 summarize ridership and revenue statistics for full fare riders on CTA, comparing 1989 vs. 1990 and indicating percent changes. Table 9 indicates that full fare ridership, measured in terms of both linked and unlinked trips, shifted slightly. Unlinked trips dropped by -0.4%, while linked trips (journeys) increased by 1.0%. Cash and token as a method of fare payment grew while pass usage declined, as noted earlier. Transfers received also grew, but somewhat less than cash fare payments. Table 10 indicates that revenue paid by full fare passengers, including both pass and cash, also grew, by 6.7%. The average fare per journey increased 5.6%.

Other highlights of these two tables include:

Revenue from adult (full fare) pass riders decreased 10.0% from 1989 to 1990.

Revenue from full fare cash riders (including tokens) increased 11.9% from 1989 to 1990.

Full fare unlinked trips on both the bus and rail systems both dropped slightly from 1989 to 1990.

Average fare/unlinked ride increased by 7.1%, from 61.6 cents/ride to 66.0 cents/ride. Average journey fare increased by 5.6%, from \$1.046 to \$1.104 per trip. Average cash fare/unlinked ride increased 5.4%, from 68.4 cents/ride to 72.1 cents/ride.

As a share of the total CTA system, full fare riders constituted 82.2% in 1989, providing 90.4% of revenue; shifting to 81.9% of unlinked riders and 91.4% of revenue in 1990.

TABLE 7  
ANNUAL UNLINKED BOARDINGS  
(millions)

| <u>1989 Fare/Mode</u>  | <u>Full</u>    | <u>Reduced</u> | <u>Total<sup>a</sup></u> | <u>Source</u>                             |
|------------------------|----------------|----------------|--------------------------|---|
| <u>Cash</u>            | 189.492        | 38.296         | 227.788                  | CTA Financial                             |
| Bus                    | 125.514        | 33.95          | 159.464                  | Reports (1989)                            |
| Rail                   | 63.978         | 4.346          | 68.324                   |   |
| <u>Transfers Rec'd</u> | 131.140        | 31.808         | 162.948                  | F/R Split <sup>b</sup><br>from Xfer Sales |
| Bus                    | 99.636         | 28.434         | 128.075                  | Red= 22.2%                                |
| Rail                   | 31.504         | 3.369          | 34.873                   | Red= 9.7%                                 |
| <u>Passes</u>          | 146.162        | 30.790         | 176.952                  | F/R Split <sup>c</sup><br>from Pass Sales |
| Bus                    | 109.764        | 23.122         | 132.886                  | Reduced= 17.4%                            |
| Rail                   | 36.397         | 7.667          | 44.066                   |   |
| <b>TOTAL</b>           | <b>466.794</b> | <b>100.894</b> | <b>567.688</b>           | Sum of Cate-<br>gories                    |
| Bus                    | 334.914        | 85.511         | 420.425                  |   |
| Rail                   | 131.881        | 15.382         | 147.263                  |   |

<sup>a</sup>CTA Financial Report, 12th Period 1989 (includes Special Services).

<sup>b</sup>Transfer Sales F/R from 1989 Ridership Fact Sheets

<sup>c</sup>Pass Sales Split from Group Sales data, 14-Day converted to monthly equivalent.

TABLE 8  
ANNUAL UNLINKED BOARDINGS 1990  
(millions)

| 1990 FARE/MODE  | FULL    | REDUCED | TOTAL   | SOURCES                                       |
|-----------------|---------|---------|---------|---|
| CASH            | 205.070 | 39.533  | 244.603 | Ridership<br>Fact Sheets (1990)               |
| Bus             | 138.164 | 35.177  | 173.341 |   |
| Rail            | 66.906  | 4.356   | 71.262  |   |
| TRANSFERS REC'D | 135.474 | 31.913  | 167.387 | F/R Split from Tfer Sales<br>Periods 1-4 5-12 |
| Bus             | 102.507 | 28.420  | 130.927 | Reduced = 22.4% 21.4%                         |
| Rail            | 32.967  | 3.493   | 36.460  | Reduced = 9.6% 9.6%                           |
| PASSES          | 124.389 | 30.977  | 155.366 | F/R Split from Pass Sales<br>Periods 1-4 5-12 |
| Bus             | 93.571  | 23.297  | 116.868 | Reduced = 17.2% 21.5%                         |
| Rail            | 30.818  | 7.680   | 38.498  |   |
| TOTAL           | 464.933 | 102.423 | 567.356 | Sum of Categories                             |
| Bus             | 334.242 | 86.894  | 421.136 |   |
| Rail            | 130.691 | 15.529  | 146.220 |   |

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TABLE 9  
FULL FARE RIDER SHIFTS  
1988 - 1990

| Ridership Measure            | 1988    | 1989    | % Change | 1990    | % Change   |
|------------------------------|---------|---------|----------|---------|------------|
| <hr/>                        |         |         |          |         |            |
| Unlinked Trips (in millions) |         |         |          |         |            |
| Cash                         | 184.093 | 189.492 | *        | 2.9%    | 205.070 ** |
| Transfer Rec'd               | 127.468 | 131.14  | 2.9%     | 135.474 | 3.3%       |
| Pass                         | 152.652 | 146.162 | -4.3%    | 124.389 | -14.9%     |
| Total                        | 464.213 | 466.794 | 0.6%     | 464.933 | -0.4%      |
| Bus                          | 331.837 | 334.914 | 0.9%     | 334.242 | -0.2%      |
| Rail                         | 132.376 | 131.881 | -0.4%    | 130.691 | -0.9%      |
| Share of Total               |         |         |          | .       | .          |
| Bus                          | 78.2%   | 79.7%   |          | 79.3%   |            |
| Rail                         | 89.0%   | 82.2%   |          | 89.4%   |            |
| Total                        | 81.0%   | 82.2%   |          | 81.9%   |            |
| <hr/>                        |         |         |          |         |            |
| Journeys (Linked Trips)      |         |         |          |         |            |
| Cash                         | 184.093 | 189.492 | 2.9%     | 205.070 | 8.2%       |
| Pass                         | 89.270  | 85.475  | -4.3%    | 72.742  | -14.9%     |
| Total                        | 273.363 | 274.967 | 0.6%     | 277.812 | 1.0%       |

\* Includes 17,252,220 token redemptions.

\*\* Includes 41,898,068 token redemptions; for periods 5-12, token usage grew by 215.8%.

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Table 10  
Full Fare Revenue Shifts  
1989 vs. 1990

| Revenue Measure                    | 1989    | 1990    | % Change |
|------------------------------------|---------|---------|----------|
| Cash (Millions)                    | 219.313 | 245.398 | 11.9%    |
| Pass (Millions)                    | 68.279  | 61.420  | -10.0%   |
| Total Full Fare Revenue (Millions) | 287.592 | 306.818 | 6.7%     |
| % of Total Farebox                 | 90.4%   | 91.4%   | 1.2%     |
| <br>Unlinked Trips                 |         |         |          |
| Average Fare                       | 0.616   | 0.660   | 7.1%     |
| Average Cash Fare                  | 0.684   | 0.721   | 5.4%     |
| Average Pass Fare                  | 0.467   | 0.494   | 5.7%     |
| <br>Journeys<br>(Linked Trips)     |         |         |          |
| Average Fare                       | 1.046   | 1.104   | 5.6%     |
| Average Cash Fare                  | 1.157   | 1.197   | 3.4%     |
| Average Pass Fare                  | 0.799   | 0.844   | 5.7%     |

Note: Full fare revenue calculated as total revenue less reduced fare revenue. Total fare revenue taken from 12th Period Financial Report, 1990, for both years.

Full fare riders paid the following prices in relation to the April 29, 1990 Fare Restructuring:

| Tokens                 | Before        | After         |
|------------------------|---------------|---------------|
| Cash Rail and Peak Bus | 10 for \$9.50 | 10 for \$9.00 |
| Cash Bus Off Peak      | \$1.00        | \$1.00        |
| Transfers              | \$0.25        | \$0.25        |
| Express Surcharge      | \$0.20        | \$0.20        |
| Weekday Pass           | N.A.          | \$45.00       |
| Everyday Pass          | \$50.00       | \$60.00       |

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### Reduced Fare Riders

Table 11 and 12 provide a parallel breakdown of reduced fare riding in 1989 and 1990, in the same format as Tables 9 and 10. In contrast to the stable full fare ridership observed in 1990, reduced fare ridership grew significantly, especially since the April fare restructuring. Most of this growth occurred in terms of cash passengers, though pass sales and usage also went up slightly. The ridership growth occurred primarily on bus. Average fares also dropped significantly.

Highlights of these two tables include:

- Revenue from reduced fare pass riders increased 3.8% from 1989 to 1990.
- Revenue from reduced fare cash riders decreased 9.1% from 1989 to 1990.
- Unlinked trips by reduced fare riders increased 1.5% from 1989 to 1990 (including transfer received).
- Reduced fare journeys (linked trips) increased 2.4% from 1989 to 1990.
- Average fare/unlinked trip decreased 7.5%, from 30.4 cents/ride to 28.1 cents/ride.
- Average cash fare/unlinked trip decreased 10.8%, from 33.8 cents/ride to 30.1 cents/ride.
- As a share of the total CTA system, reduced fare riders constituted 17.8% of riders in 1989, providing 9.6% of revenue; in 1990 18.1% of all passengers were unlinked reduced fare riders accounting for 8.6% of revenue.
- The increase in reduced fare unlinked trips was felt 87% on the bus system and 13% on the rail system.
- Average journey fare decreased by 8.3%, from 54.5 cents to 50.0 cents; the average cash journey fare decreased 11.9%, from 61.9 cents to 54.5 cents.

### RECENT RIDERSHIP TRENDS

The first quarter of 1990, though similar in fares and service to all of 1988 and 1989, exhibited ridership patterns which differed from the small gradual decreases discussed in the 1989 Ridership Review. These early increases were the basis for the overall slight gain in ridership for 1990 (Figure 1).

TABLE 11  
REDUCED FARE RIDER SHIFTS  
1988 - 1990

| Ridership Measure            | 1988    | 1989     | % Change | 1990      | % Change |
|------------------------------|---------|----------|----------|-----------|----------|
| <hr/>                        |         |          |          |           |          |
| Unlinked Trips (in millions) |         |          |          |           |          |
| Cash                         | 42.469  | 38.296 * | -9.8%    | 39.533 ** | 3.2%     |
| Transfer Rec'd               | 36.284  | 31.808   | -12.3%   | 31.913    | 0.3%     |
| Pass                         | 30.384  | 30.79    | 1.3%     | 30.977    | 0.6%     |
| Total                        | 109.137 | 100.894  | -7.6%    | 102.423   | 1.5%     |
| Bus                          | 92.778  | 85.511   | -7.8%    | 86.894    | 1.6%     |
| Rail                         | 16.359  | 15.382   | -6.0%    | 15.529    | 1.0%     |
| <hr/>                        |         |          |          |           |          |
| Share of Total               |         |          |          |           |          |
| Bus                          | 21.8%   | 20.3%    |          | 20.7%     |          |
| Rail                         | 11.0%   | 10.4%    |          | 10.6%     |          |
| Total                        | 19.0%   | 17.8%    |          | 18.1%     |          |
| <hr/>                        |         |          |          |           |          |
| Journeys (Linked Trips)      |         |          |          |           |          |
| Cash                         | 42.469  | 38.296   | -9.8%    | 39.533    | 3.2%     |
| Pass                         | 17.768  | 18.006   | 1.3%     | 18.115    | 0.6%     |
| Total                        | 60.237  | 56.302   | -6.5%    | 57.648    | 2.4%     |

\* Includes 8,046,049 token redemptions.

\*\* Includes 11,059,774 token redemptions;  
for periods 5-12, token usage grew by 64.9%.

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Table 12  
Reduced Fare Revenue Shifts  
1989 vs. 1990

| Revenue Measure                       | 1989   | 1990   | % Change |
|---------------------------------------|--------|--------|----------|
| Cash (Millions)                       | 23.689 | 21.540 | -9.1%    |
| Pass (Millions)                       | 7.013  | 7.280  | 3.8%     |
| Total Reduced Fare Revenue (Millions) | 30.702 | 28.820 | -6.1%    |
| % of Total Farebox                    | 9.6%   | 8.6%   | -11.0%   |
| <br>Unlinked Trips                    |        |        |          |
| Average Fare                          | 0.304  | 0.281  | -7.5%    |
| Average Cash Fare                     | 0.338  | 0.301  | -10.8%   |
| Average Pass Fare                     | 0.228  | 0.235  | 3.2%     |
| <br>Journeys<br>(Linked Trips)        |        |        |          |
| Average Fare                          | 0.545  | 0.500  | -8.3%    |
| Average Cash Fare                     | 0.619  | 0.545  | -11.9%   |
| Average Pass Fare                     | 0.389  | 0.402  | 3.2%     |

Note: Reduced fare cash revenue calculated as ridership for each fare type times the fare. Total fare revenue taken from 12th Period Financial Report, 1990, for both years

Reduced fare riders paid the following prices in relation to the April 29, 1990 Fare Restructuring:

| Tokens                 | Before<br>20 for \$10.00 | After<br>20 for \$8.00 |
|------------------------|--------------------------|------------------------|
| Cash Rail and Peak Bus | \$0.50                   | \$0.45                 |
| Cash Bus Off Peak      | \$0.50                   | \$0.40                 |
| Transfers              | \$0.15                   | \$0.15                 |
| Express Surcharge      | \$0.20                   | \$0.20                 |
| Weekday Pass           | N.A.                     | N.A.                   |
| Everyday Pass          | \$25.00                  | \$25.00                |

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Ridership increased significantly in February and March of 1990. It had been over two years since fares were last changed. The return of reduced fare riders, first observed late in 1989, continued, in the form of less severe relative decreases in reduced fare traffic (down only 7.0%). Overall ridership increased 1.9% over the first four periods (Figure 2) of 1989, led by full fare riding, which was up 10.2% on bus and 4.7% on rail, or 8.4% combined. Pass usage was down only 3.9%. In all categories, weekday and period totals changed by similar percentages.

There is no clear explanation for the rise in early 1990 ridership, but its effects seem to have disappeared before fares changed. It is known that winter and spring weather was mild in 1990, and that mandatory Illinois auto insurance was strongly enforced and publicized beginning January 1, 1990. These may have contributed to the brief, temporary increase in transit ridership. CTA fares and service levels also received a higher degree of public awareness, beginning with public hearings early in 1990, and continuing as marketing efforts educated the public about the forthcoming new fares.

CTA restructured fares in April, 1990 with the goal of stabilizing (and possibly increasing) ridership as well as increasing revenue over the remainder of the year. Compared with periods 5-12 of 1989, overall ridership decreased by 600,000, or -0.2%. Individually, only 2 of those 8 periods had a decrease greater than -0.5%, and 3 periods toward the end of the year showed increases. It consequently took several months for slight ridership increases to occur. The effects of the fare restructuring are somewhat obscured by its timing, just before the end of the school year and the onset of summer vacations. Bus ridership traditionally experiences a seasonal dip in ridership from 6th through 8th periods (Figure 3), but the dip was slightly smaller in 1990. Rail ridership was more steady throughout the year (Figure 4); fare restructuring turned rail ridership around as early as 7th period.

Fare restructuring produced lower fares for all reduced fare riders (senior citizens, persons with disabilities, students, and children) using cash or tokens, with no change in pass prices. Reduced fare ridership increased 9.7% in periods 5-12; for 12th period alone there was a 26.2% increase. It took until 9th period (when school resumed) for reduced fare ridership increases to exceed 10%. Full fare riders dealt with the option of increased cash fares or lower token prices in this manner: token use tripled, rail full fares increased 7.6%, and bus full fares (peak and off-peak combined) rose 10.9%. These increases were apparent as early as 6th period.

Figure 1

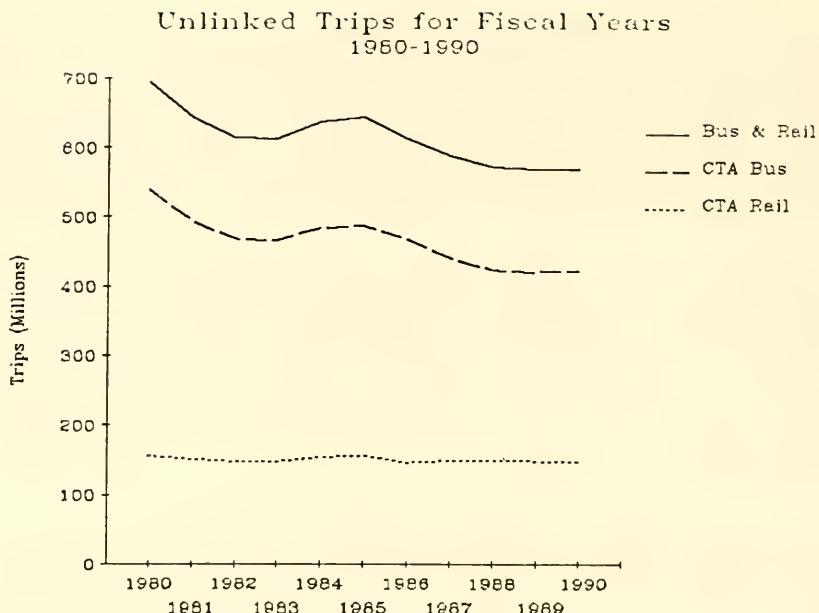


Figure CTA001

Figure 2

**Weekly Average Unlinked CTA Trips by Period  
1987-1990**

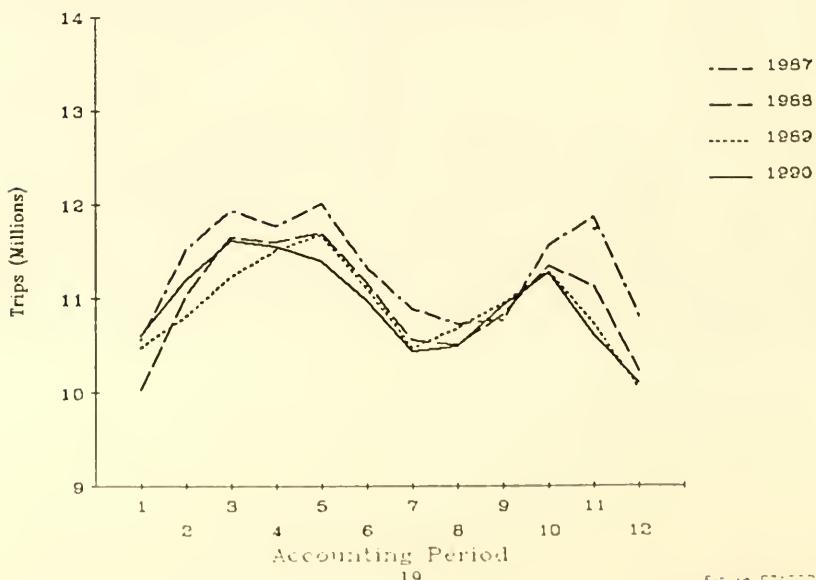


Figure CTA012

Figure 3

Weekly Average Unlinked Bus Trips by Period  
1987-1990

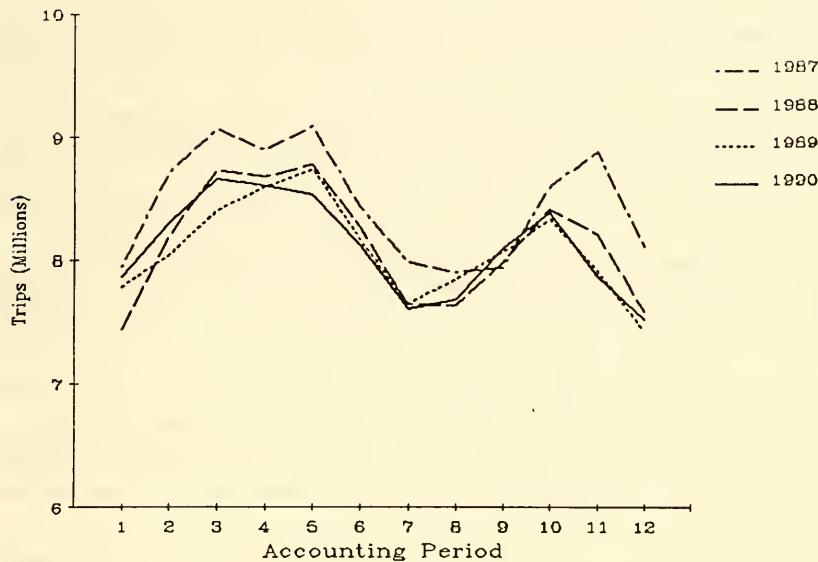


Figure CTA003

Figure 4

Weekly Average Unlinked Rail Trips by Period  
1987-1990

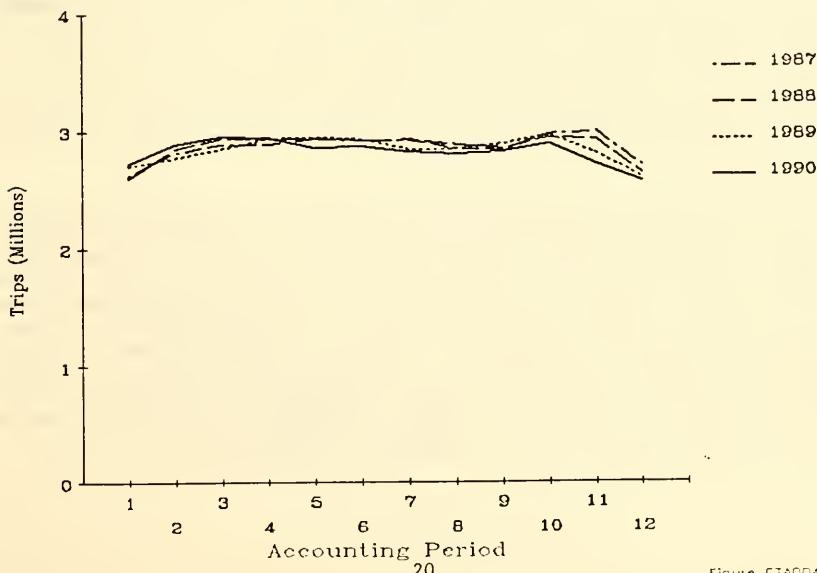


Figure CTA004

## PASS SALES AND USAGE TRENDS

It was also apparent in the 6th period that pass sales and usage had declined more than anticipated, reflecting in part the new popularity of tokens. Figure 5 charts the historical pattern of pass sales following price increases in March, 1986; January, 1988; and May, 1990. As in 1988, riders in 1990 took about six months to adjust to the fare change. The new weekday pass, good all month, reached its expected 40% of the pass sales market. Unlike 1988 experience, however, overall pass sales did not return to their previous levels. 1990 pass sales in periods 10-12 were down 19.0% from the monthly equivalent of 1989 passes. A significant portion of the riding public has apparently viewed passes as a moderate savings over tokens, rather than a substantial savings over the cash fare. Lower pass sales have resulted.

Figure 6 charts the trend of total passes in circulation since 1985. A new point was plotted whenever a new month or a new 14-day period starts. The final period of 14-Day Pass usage ended April 22, 1990, a week before fare restructuring was completed. The data plot combined monthly pass sales with 14-day pass sales before that time, and the everyday and weekday monthly passes were combined after that point.

April shows the effects of discontinuing 14-Day Passes. Though there was some experimentation with the new pass in May, declines continued steadily for about six months. The further dip in circulation at year's end is expected to recover seasonally as in previous years. Unemployment was also slowly growing in Cook County during this period, cutting into the pass market.

Figure 7 shows average weekday pass use per pass, as counted by the bus farebox and pass reader system, and rail ticket agents and pass readers, but not including conductor counts, which are accumulated only weekly. The data were plotted such that the start of each month or 14-day pass period generated another data point on the graph. This approach most accurately reflects actual use, but results in unusually high or low values around holidays. Weekend dates, on which weekday passes could not be used, are not part of this analysis.

The four years plotted show the change in use levels in 1990, but still following the overall seasonal pattern of 1987-89. Weekday use (unlinked trips per pass) averaged 3.87 in 1987, 3.90 in 1988, 3.82 in 1989, and 3.85 in 1990 (3.73 after fare restructuring). With the 1990 removal of some weekday pass usage and all Supertransfer sales, weekend traffic dropped much more severely than that of weekdays. In fact, weekday uses of passes were down 13.1% following fare restructuring; Sunday uses of passes were down 32.0%. These decreases canceled out the gains fare restructuring produced in all other ridership categories, for an overall Sunday loss of 16.9%, masking a weekday gain of 1.5%.

Figure 8, showing monthly pass use per pass over the last four years, confirms the weekday 1990 decline of Figure 7, as the poor weekend performance is added to the result. Overall pass uses per month were 103.9, compared with 107.6 in 1989, 110.3 in 1988, and 111.3 in 1987.

The steady decline in pass use per pass as prices have generally increased is somewhat surprising. Introduction of the weekday monthly pass explains most of the change for 1990.

#### SUBURBAN TRANSIT RIDERS CARRIED BY CTA

CTA continues to be the primary transit carrier in the metropolitan region, including suburban Cook County and the entire suburban area. As summarized in Table 14, over half of all suburban transit trips (unlinked rides on transit vehicles) are made on CTA; for Cook County only this figure is 56%.

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Table 13  
PASS SALES AND USAGE, 1989 - 1990

| <u>SALES</u>        | <u>1989</u> | <u>1990</u> | <u>% Change</u> |
|---------------------|-------------|-------------|-----------------|
| <b>Full Fare</b>    |             |             |                 |
| Monthly*            | 980,513     | 1,030,075   | 5.1%            |
| 14-Day**            | 761,196     | 236,243     | -69.0%          |
| <b>Reduced Fare</b> |             |             |                 |
| Monthly             | 279,606     | 284,574     | 1.8%            |
| Total Sales         | 2,021,315   | 1,550,892   | -23.3%          |
| Total Uses          | 176,952,197 | 146,831,015 | -17.0%          |

\* Weekday passes included since May, 1990.

\*\*14-Day passes terminated in April, 1990.

Sources: Pass sales from Treasury Pass Activity Reports.  
Pass use from Planning & Research Ridership Fact Sheets.

TABLE 14  
SUBURBAN TRANSIT RIDERS BY CARRIER, 1990

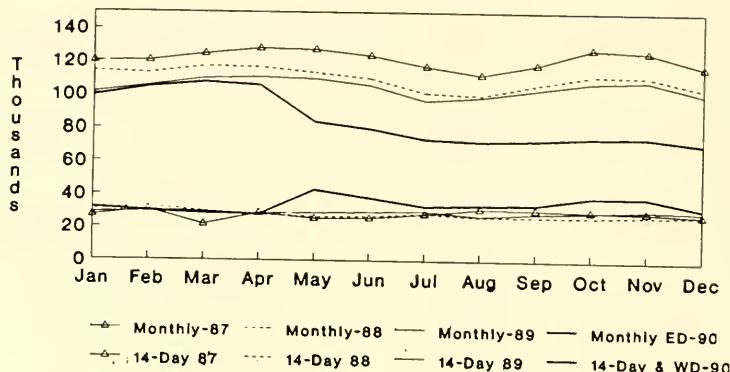
| Suburban Carrier     | Ridership<br>(in millions) | Percent |
|----------------------|----------------------------|---------|
| CTA                  | Cook Co. 76.4              | 56.4%   |
|                      | Total Subs 111.7           | 50.4%   |
| METRA                | Cook Co. 30.7              | 22.7%   |
|                      | Total Subs 69.4 *          | 31.4%   |
| PACE                 | Cook Co. 28.3              | 20.9%   |
|                      | Total Subs 40.3 *          | 18.2%   |
| Total                | Cook Co. 135.5             |         |
|                      | Total Subs 221.4           |         |
| CTA Ridership Totals |                            |         |
| Cook Co.             | 76.4                       | 13.0%   |
| Total Subs           | 111.7                      | 19.0%   |
| Chicago              | 476.0                      | 81.0%   |
| TOTAL                | 587.7 **                   |         |

\* Source : Regional Transportation Authority

\*\* Source : UMTA Section 15 Report of 1990 Ridership;  
includes rail cross-platform transfers

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Figure 5.  
**MONTHLY vs. 14-DAY & WEEKDAY PASS SALE**  
 1987 -- 1990



The lower figures are 14-Day & WD Pass sales. 14-Day pass terminated in April, 1990 and WD pass started in May, 1990.

Figure 6.  
**TOTAL PASSES IN CIRCULATION**

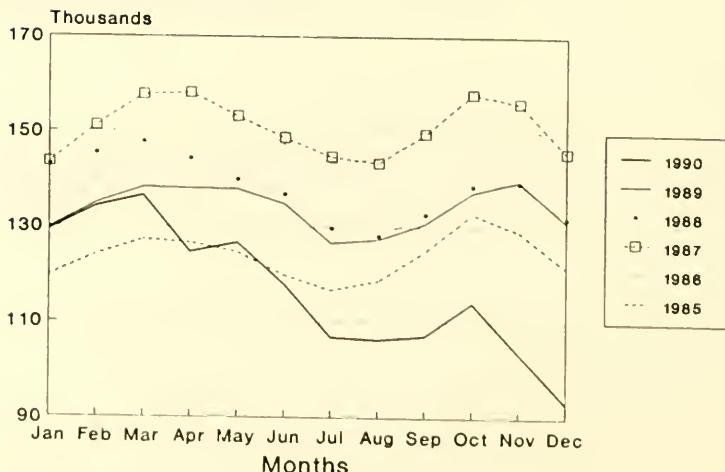


Figure 7.  
WEEKDAY PASS USE PER PASS  
1987 -- 1990

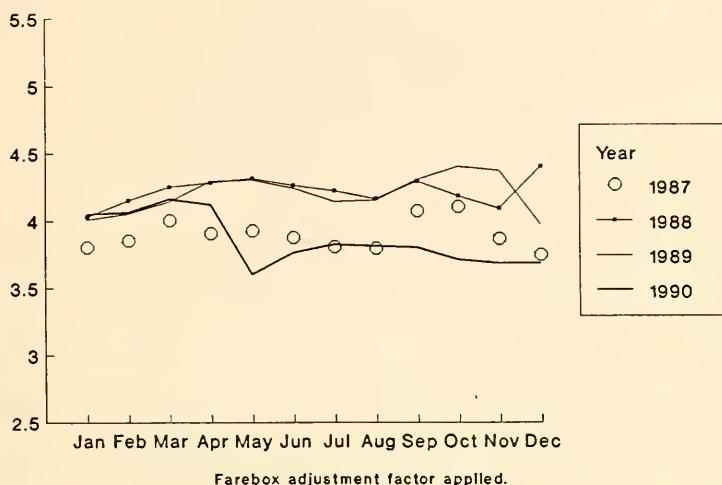
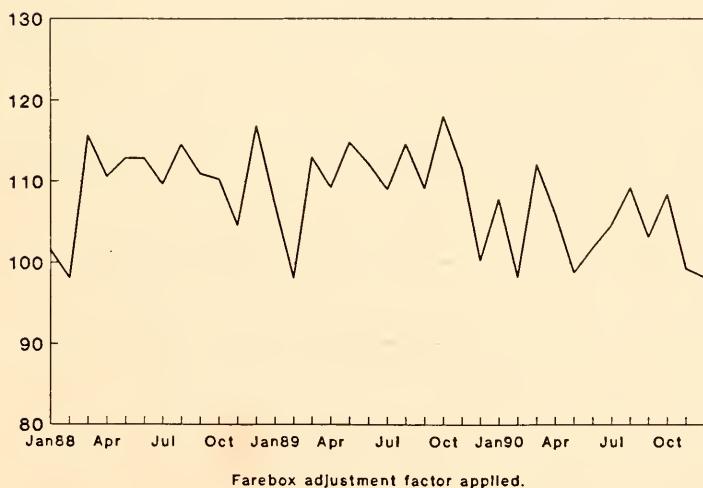


Figure 8.  
MONTHLY PASS USE PER PASS  
1988 -- 1990



TECHNICAL REPORTS  
PLANNING & RESEARCH DEPARTMENT

| <u>No.</u> | <u>Title</u>  | <u>Date</u>     |
|------------|---|-----------------|
| SP90-01    | Adopt-A-Station Program   | March, 1990     |
| SP90-02    | 1989 Ridership Review   | May, 1990       |
| SP90-03    | Culture Bus Rider Survey  | May, 1990       |
| SP90-04    | O'Hare Corridor Work Travel Survey  | May, 1990       |
| SP90-05    | Central Area Resident Travel Survey                                       | June, 1990      |
| SP90-06    | O'Hare Airport Ground Travel Survey                                       | June, 1990      |
| PR90-07    | 1989 Annual Report  | September, 1990 |
| PR90-08    | Analysis and Interpretation of Factors Affecting CTA Ridership            | September, 1990 |
| PR90-09    | Implementation Plan for Transportation Services to the Disabled: Phase II | November, 1990  |
| PR90-10    | Strategic Management Plan (Draft)   | December, 1990  |
| PR90-11    | Lift-Equipped Fixed-Route Bus Survey                                      | September, 1990 |
| PR90-12    | Privatization of CTA Support Service Functions                            | December, 1990  |

**TECHNICAL REPORTS**  
**PLANNING & RESEARCH DEPARTMENT**

| No.     | Title   | Date        |
|---------|---|-------------|
| PR91-01 | Market-Oriented Transit Pricing at CTA                | May, 1991   |
| PR91-02 | Grant Park Museum Campus Surveys                      | April, 1991 |
| PR91-03 | Automatic Vehicle Location and Control Systems Survey | April, 1991 |
| PR91-04 | 1990 Ridership Review                                 | May, 1991   |
| PR91-05 | Transit Pricing Evaluation Model (TPEM)               | May, 1991   |

